

Line 15, change "23 is provided, which encloses" to —23 that encloses—.

Line 22, after "and cathode," insert —conductor or a—.

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Line 20, delete "pyrolytic".

Line 21, after "boron nitride," insert —such as pyrolytic boron nitride,—.

Line 23, before "beryllium" insert —isotropic boron nitride, anisotropic boron nitride,—.

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Line 21, after "anode 24." insert —A voltage of 10 kilovolts or even higher may be applied to the transmissive device 20 of the present invention without causing electrical flashover. Further, voltages of 20 kilovolts or 30 kilovolts may be applied without electrical flashover.—.

In the Claims

Please cancel claim 1 and add new claims 31–46 as follows:

31. (New) A transmissive device for insertion into a body of a patient, comprising:
a catheter with a lumen; and
a flexible coaxial cable in the lumen, the coaxial cable having an outer diameter of three millimeters or less;
wherein the cable is capable of conducting a voltage greater than or equal to 10 kilovolts without electrical discharge.

32. (New) The device of claim 31 further comprising a biocompatible coating over the flexible coaxial cable.

33. (New) The device of claim 31 wherein the coaxial cable is capable of delivering a direct current voltage.

34. (New) The device of claim 31 wherein the cable is connected at a distal end to a unit requiring a voltage of greater than or equal to 10 kilovolts.

35. (New) The device of claim 31 wherein the coaxial cable is capable of delivering a voltage greater than or equal to 20 kilovolts.
36. (New) The device of claim 31 wherein the coaxial cable is capable of delivering a voltage greater than or equal to 30 kilovolts.
37. (New) The device of claim 31 wherein the device is sized to be inserted into a lumen of the body and the device has a maximum diameter of 3.0 millimeters.
38. (New) The device of claim 31 wherein the device is sized to be inserted into a lumen of the body and the device has a maximum diameter of 2.5 millimeters.
39. (New) The device of claim 31 wherein the device is sized to be inserted into a lumen of the body and the device has a maximum diameter of 1.5 millimeters.
40. (New) A method for conducting current within a body, comprising the steps of:
inserting a transmissive device into the body, the transmissive device comprising a catheter with a lumen and a flexible coaxial cable in the lumen, operatively coupled to a housing of the transmissive device, the coaxial cable having an outer diameter of three millimeters or less, wherein the cable is capable of conducting a voltage greater than or equal to 10 kilovolts without electrical discharge; and
applying a voltage greater than or equal to 10 kilovolts to the coaxial cable;
wherein the transmissive device can be operated without electrical discharge.
41. (New) A device for insertion into a body, comprising:
a connector;
a composite structure comprising a housing that joins a cathode and an anode, wherein the housing is composed of boron nitride.
42. (New) The device of claim 41 wherein the housing is composed of isotropic boron nitride.